

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (currently amended) Regulating device for the linear regulation of an actuating element which is connected for movement to a ball spindle drive for the conversion of a rotational movement into a linear movement, whereby the rotational movement can be transferred to the spindle drive from at least one motor via a gear unit that includes, ~~characterized in that the gear unit exhibits a self-locking, helically-toothed spur-wheel gear, having helical teeth causing self-locking, which is formed by as a double helical gear having with~~ at least one first spiral-toothed gearwheel and at least one second spiral-toothed gearwheel, whereby ~~the in each case~~ at least one motor is arranged ~~at both sides of the ball spindle drive and each of the motors is connected for movement with the~~ second spiral-toothed gearwheel.

2. (currently amended) Regulating device according to claim 1, characterized in that a ball nut of the ball spindle drive is supported rotationally, but is axially immovable in a housing of the regulating device and a rotating spindle of the ball spindle drive is connected for movement to the actuating element.

3. (currently amended) Regulating device according to claim 2~~1~~, characterized in that the rotating spindle and the ~~bar-shaped~~ actuating element are arranged one behind the other in the axial direction.

4. (currently amended) Regulating device according to claim 2, characterized in that the ball nut is connected to the first spiral-toothed gearwheel and the motor to the second spiral-toothed gearwheel of the double helical gear.

5. (currently amended) Regulating device according to claim 1, characterized in that the at least one motor is an electric motor.

6. (currently amended) Regulating device according to claim 1, characterized in that there are two motors, each driving a second spiral-toothed gearwheel, both second spiral-toothed gearwheels engagingengage the first spiral-toothed gearwheel.

7. (currently amended) Regulating device according to claim 6, characterized in that the drive shafts of motors have drive shafts arranged at both sides of the actuating element extendingrun parallel to one another.

8. (currently amended) Regulating device according to claim 7, characterized in that at least two motors are arranged on each drive shaft.

9. (currently amended) Regulating device according to claim 1, characterized in that a reduction gear, ~~in particular a so-called harmonic drive,~~ is arranged between the at least one motor~~drive shaft~~ and the second spiral-toothed gearwheel.

10. (currently amended) Regulating device according to claim 9, characterized in that the at least one motor has a drive shaft is~~connected for movement with a~~ flexible, cup-shaped toothed sleeve of ~~a~~the harmonic drive.

11. (currently amended) Regulating device according to claim 1, characterized in that a diagonal angle of the helical gearing of the first and/or the second spiral-toothed gearwheel is in the range from 50 to 90° and ~~particularly in the range from 65 to 85°.~~

12. (currently amended) Regulating device according to one claim 1, characterized in that the ~~transmission ratio of the double helical gear~~ has a transmission ratio of ~~is~~ between 2.5 and 1~~i=2.5 and i<1.~~

13. (currently amended) Regulating device according to claim 1, further including ~~a~~characterized in that the housing is formed as a module housing which can be flange-mounted on a control mechanism, ~~which is particularly~~ deployed in the field of gas and/or oil supply.

14. (currently amended) Regulating device according to claim 13, characterized in that the module housing exhibits a first and second housing half ~~with, whereby the motor and the ball spindle drive are located in the first housing half.~~

15. (currently amended) Regulating device according to claim ~~21~~3, characterized in that an intermediate cover is arranged within ~~the~~ module housing for at least single-ended support of the second spiral-toothed ~~gearwheel~~gearwheels.

16. (original claim) Regulating device according to claim 15, characterized in that a position sensor for the acquisition of the position of the rotating spindle and/or the ball nut is arranged on the intermediate cover.

17. (currently amended) Regulating device according to claim ~~21~~4, characterized in that the first spiral-toothed gearwheel is releasably mounted, ~~in particular releasably,~~ on an end of the ball nut facing away from the actuating element.

18. (currently amended) Regulating device according to claim 2, characterized in that an intermediate ring, ~~in particular capable of being screwed externally onto the ball nut,~~ is arranged between the ball nut and the first spiral-toothed gearwheel.

19. (currently amended) Regulating device according to claim 2, characterized in that the ball nut is held immovably in the axial direction by pivot bearings and a retention ring which is releasably mounted in the housing, ~~releasably where applicable.~~

20. (currently amended) Regulating device according to claim 2, characterized in that the actuating element and/or the rotating spindle are supported rotationally rigidly in the housing, ~~in particular~~ using a splined shaft.

21. (currently amended) Regulating device according to claim ~~65~~5, characterized in that the electric motors are synchronized.

22. (currently amended) Regulating device according to claim 1, characterized in that the first and second spiral-toothed gearwheels exhibit 1 to 10, ~~preferably 1 to 7 and especially preferably 1 to 4 teeth.~~

23. (currently amended) Regulating device according to claim 7~~4~~, characterized in that the drive shafts are synchronised in their rotational movements using a mechanical coupling device.

24. (New) Regulating device according to claim 9 wherein the reduction gear is a harmonic drive.

25. (New) Regulating device according to claim 22 wherein the first and second spiral-toothed gearwheels have 1 to 7 teeth.

26. (New) Regulating device according to claim 22 wherein the first and second spiral-toothed gearwheels have 1 to 4 teeth.

27. (New) Regulating device according to claim 1, characterized in that a diagonal angle of the helical gearing of the first and/or the second spiral-toothed gearwheel is in the range from 65 to 85°.

28. (New) Regulating device for the linear regulation of an actuating element which is connected for movement to a ball spindle drive for the conversion of a rotational movement into a linear movement, the regulating device comprising:

- a first spiral-toothed gearwheel connected to the ball spindle drive;
- a second spiral-toothed gearwheel connected to a motor;
- the first and second spiral-toothed gearwheels forming a double helix gear;
- the rotational movement of the motor being transferred to the spindle drive via the double helix gear.

a gear unit that includes a self-locking, helically toothed spur-wheel gear formed by a double helical gear having at least one first spiral-toothed gearwheel and at least one second

Appln. No. 10/525,926
Amdt. Dated September 13, 2006
Reply to Office Action of June 14, 2006

spiral-toothed gearwheel, whereby the at least one motor is connected for movement with the second spiral-toothed gearwheel.